

REMARKS

After entry of this Response, claims 1 – 15 are pending in the application. None of the claims have been amended or canceled. No new claims have been added. Reconsideration of the application is requested.

The reissue oath/declaration has been found defective. The Examiner states that the previously filed reissue oath/declaration fails to contain a statement that all errors which are being corrected in the application arose without any deceptive intent on the part of the Applicant. The Applicant has included an executed SUPPLEMENTAL DECLARATION FOR REISSUE PATENT APPLICATION TO CORRECT “ERRORS” STATEMENT.

Claims 1 through 15 stand rejected under 35 U.S.C. 251. The independent claim 1 and claims 2 through 8, dependent upon claim 1, have been presented previously in the United States Patent No. 5,315,880, assigned to the Applicant of the present application. Therefore, the rejection of claims 1 through 8 is believed to be moot.

Referring now to claims 9 through 15, the language “and opposite the predetermined direction and at an angle of between 30 and 40 degrees to said fluid surface”, was eliminated therefrom, because it is unnecessary to patentably distinguish the invention over the cited prior art of record, cited during prosecution of the United States Patent No. 5,315,880. Furthermore, there is support in the application as originally filed that the overall invention was intended to be broader than that claimed in claim 1 and the claims depending therefrom.

Alluding to the above, neither the TITLE or the TECHNICAL FIELD suggest or require this limitation. In particular, the title states the invention broadly as a “METHOD FOR MEASURING FLUID VELOCITY BY MEASURING THE DOPPLER FREQUENCY SHIFT OF

MICROWAVE SIGNALS”. The TECHNICAL FIELD acknowledges the breadth of the invention as “--a non-invasive method for measuring the velocity of a fluid surface--”.

Furthermore, the objects of the invention do not suggest or require this limitation.

Rather, the objects under DISCLOSURE OF THE INVENTION state that:

“An object of the present invention is to provide an improved non-invasive method for measuring the velocity of fluid surface flowing in a channel or flume.

Another object of the present invention is to provide a non-invasive method for measuring the velocity of fluid surface that utilizes radar technology.

Still another object of the present invention is to provide an improved noninvasive method for measuring the flow rate of a fluid flowing in a channel or flume.”

None of these objects suggest that the invention be limited to an electrical signal directed “opposite the predetermined direction and at an angle of between 30 and 40 degrees to said fluid surface.” Rather, the stated objects can be met outside of these prescribed parameters but within the scope of the invention.

Alluding to the above, Column 3, lines 12-14 of the United States Patent No. 5,315,880 patent states that “[t] his non-invasive method utilizes radar technology and avoids equipment problems associated with the emersion of radar equipment into contaminated fluids.” The breadth of the invention is acknowledged also at lines 34-38 in column 3 which states that “[t]he microwave frequency electrical signal generated by the radar velocity sensor 12 is reflected from the fluid surface and the velocity of fluid surface is determined by the Doppler frequency shift between the directed and’ reflected signal.” This statement is consistent in scope with the foregoing objects of the invention and does not require the claim language underlined above for the invention to be operative. Rather, the choice of direction and angle in claim 1 merely expresses that of the preferred exemplary mode.

Accordingly, as long as one can determine the Doppler frequency shift from the directed and reflected microwave frequency electrical signal as a measure of the velocity of the fluid surface, the claimed method is operative. The electrical signal in the patentee's invention can be directed at directions other than "opposite the predetermined direction" and at angles other than "at an angle of between 30 and 40 degrees to said fluid surface". The method of claims 9 and 13 is consistent in scope with the title, TECHNICAL FIELD and DISCLOSURE OF THE INVENTION and is operative to the United States Patent No. 5,315,880 to provide the patentee the claim coverage to which the Applicant is entitled to.

Claim 9 reflects that the "signal has an unobstructed path to the fluid surface." As described in the specification at column 3, lines 31-33 and shown in Figure 1, the signal that is sent from the radar velocity sensor travels through an unobstructed path to the fluid surface. Further, claim 9 teaches in the preamble a "method for measuring the velocity of a free fluid surface flowing in a predetermined direction in an *open channel or flume* of a fixed shape." (emphasis added) than "microwave signals." Moreover, claim 9 reflect that the open channel or flume has a "predetermined cross-section," as stated in the specification at column 3, lines 44-47 and also reflects that the "depth of said fluid travelling through the channel" is measured, as stated in the specification at column 3, lines 55-57.

Applicant respectfully submits that the patent application is now in condition for allowance. Therefore, an indication of allowability is respectfully requested.

If the Examiner believes that prosecution of the application can be expedited by way of an Examiner's amendment, the Examiner is invited to contact the Applicant's attorney at the telephone number listed below.

Applicant: Michael R. Bailey
Serial No.: 09/632,055
Group Art Unit: 2855
Examiner: Harshad R. Patel

The amount of \$1,020.00 is submitted herewith for the fee set forth in 37 CFR § 1.17(a)(3). Applicants believe that no additional fees are required; however, the Commissioner is authorized to charge our Deposit Account No. 08-2789 for any additional fees or credit the account for any overpayment.

Respectfully submitted,

HOWARD & HOWARD ATTORNEYS

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Date

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